This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS

-1- (Currently Amended)

A method for determining fluid pressure within a living animal containing the fluid under pressure which comprises:

(a) providing a wireless capacitive MEMS chip sensor comprising an inductance coil (L) and spaced apart capacitor (C) plates as ~~a~~ an inductive-capacitive (LC) circuit, ~~optionally with an antenna externally of the sensor,~~ with the fluid in the animal in pressure contact with one of the capacitive plates, wherein the circuit has an element which is a series resistance which changes as a function of temperature resulting in a change of a resonant frequency response of the circuit due to temperature;

(b) inducing a mutual inductance as an external signal into the sensor to produce the ~~a~~ resonant frequency response as an internal signal from the sensor; and

(c) determining the fluid pressure and temperature within the animal externally of the animal from the internal signal as a function of the resonant frequency response from the sensor resulting from a change in capacitance of the sensor due to a variation in the spacing of the plates produced by the fluid pressure, and the temperature of the fluid from the sensor resulting from the change in the series resistance.

-2- (Original)

The method of Claim 1 wherein the plate in contact with the fluid is a P++ doped silicon membrane.

-3- (Currently Amended)

The method of Claims 1 or 2 wherein the coil is deposited on a substrate by at least one of sputtering ~~and/or~~ and electroplating.

-4- (Currently Amended)

The method of Claim 1 wherein an ~~the~~ antenna receives the external signal and transmits back the internal signal from the sensor through the antenna for the determining externally of the animal ~~for determining~~ the fluid pressure and the temperature of the fluid.

-5- (Currently Amended)

The method of Claim 4 wherein the antenna is ~~part of~~ connected to the inductance coil and is spaced away from the capacitor (C) plates.

Claim 6 (Cancelled)

Claim 7 (Cancelled)

-8- (Currently Amended)

A system for detecting increased fluid pressure in an animal which comprises:

(a) a sensor comprising a wireless capacitive MEMS chip sensor comprising an inductance coil (L) and spaced apart capacitor (C) plates as ~~a~~ an inductive capacitive (LC) circuit, ~~optionally with an antenna externally of the sensor,~~ which is adapted to be in contact with the fluid in the animal with one of the capacitive plates, wherein the circuit has an element which is a series resistance which changes as a function of temperature resulting in a change of a resonant frequency response of the circuit due to temperature; and

(b) a mutual inductance producing device which measures the ~~a~~ resonant frequency response of the sensor as an internal signal produced by the inductance device as an external signal relative to the animal, wherein the increased pressure of the fluid in the animal is detected over time as a result from a change in capacitance of the sensor due to a variation of the

spacing of the plates produced by the fluid pressure and the change of the resonant frequency response of the series resistance; and

(c) means for externally monitoring the fluid pressure and temperature in the animal as a function of the external signal.

-9- (Currently Amended)

The system of Claim 8 wherein an ~~the~~ antenna which is external of the sensor receives the external signal from the monitoring means and transmits back the internal signal externally of the animal to the monitoring means for determining the fluid pressure and temperature.

-10- (Currently Amended)

The system of Claim 9 wherein the antenna is ~~part of~~ connected to the inductance coil and is spaced away from the capacitor (C) plates.

Claim 11 (Cancelled)

Claim 12 (Cancelled)

-13- (Currently Amended)

The system of Claim 8 wherein the means for monitoring includes memory means for storing a series of pressure and temperature determinations for several animals.

-14- (Original)

The system of Claim 13 wherein the memory means is a computer.

-15- (Currently Amended)

A method for determining fluid pressure within an eyeball containing the fluid under pressure which comprises:

(a) providing a wireless capacitive MEMS chip sensor comprising an inductance coil (L) and spaced apart capacitor (C) plates as ~~a~~ an inductive-capacitive (LC) circuit, ~~optionally with an antenna externally of the sensor,~~ with the fluid of the eye in contact with one of the capacitive plates, wherein the circuit has an element which is a series resistance which changes as a function of temperature resulting in a change of a resonant frequency response of the circuit due to temperature;

(b) inducing a mutual inductance as an external signal into the sensor to produce the ~~a~~ resonant frequency response as an internal signal from the sensor; and

(c) determining the fluid pressure and temperature within the eyeball externally of the eyeball from the internal signal as a function of the

resonant frequency response from the sensor resulting from a change in capacitance of the sensor due to a variation in the spacing of the plates produced by the fluid pressure in the eyeball and the temperature of the fluid from the sensor resulting from the change in the series resistance.

-16-(Original)

The method of Claim 15 wherein the plate in contact with the fluid is a P++ doped silicon membrane.

-17-(Currently Amended)

The method of Claims 15 or 16 wherein the coil is deposited on a substrate by at least one of sputtering ~~and/or~~ and electroplating.

-18-(Original)

The method of Claims 15 or 16 wherein the sensor is implanted in the vitriol chamber adjacent to the cornea of the eyeball.

-19-(Original)

The method of Claims 15 or 16 wherein the sensor is implanted in the aqueous chamber adjacent to the cornea of the eyeball.

-20-(Original)

The method of Claim 15 wherein the pressure of the fluid is between about 10 and 20 mm of Hg (1333 to 2666 Pascal) for normal pressure of the fluid and between about 20 and 80 mm of Hg (2666 to 10,666 Pascal) for glaucoma.

-21- (Currently Amended)

The method of Claim 15 wherein ~~the sensor has~~ an antenna ~~which~~ receives the external signal and transmits back the internal signal externally of the eyeball for determining the fluid pressure and temperature.

Claim 22 (Cancelled)

Claim 23 (Cancelled

-24- (Currently Amended)

A system for detecting increased fluid pressure and thus glaucoma of the eye which comprises:

(a) providing a wireless capacitive MEMS chip sensor comprising an inductance coil (L) and spaced apart capacitor (C) plates as ~~a~~ an inductive capacitive (LC) circuit, ~~optionally with an antenna externally of the sensor,~~ adapted to be in contact with the fluid of the eye in contact with one of the capacitive plates, wherein the circuit has an element which is a series resistance which changes as a function of temperature resulting in a change of a resonant frequency response of the circuit due to temperature; and

(b) a mutual inductance producing device which measures the ~~a~~ resonant frequency response of the sensor as an internal signal produced by the inductance producing device as an external signal relative to the eyeball, wherein the increased pressure of the fluid in the eyeball which is to be detected by the sensor results from a change in capacitance of the sensor due to a variation of the spacing of the plates produced by

the fluid pressure in the eyeball and any change of the resonant frequency response of the element in relation to temperature;

(c) means for externally monitoring the fluid pressure and temperature in the eyeball as a function of the external signal.

-25- (Currently Amended)

The system of Claim 24 wherein an ~~the~~ antenna is external of the sensor and receives the external signal from the monitoring means and transmits back the internal signal externally of the eyeball to the monitoring means for determining the fluid pressure and temperature.

Claim 26 (Cancelled)

Claim 27 (Cancelled)

-28-(Currently Amended)

The system of Claim 24 wherein the means for monitoring comprises ~~also includes~~ an atmospheric pressure sensor, so that a pressure in the eyeball can be determined relative to the atmospheric pressure.

-29-(Currently Amended)

The system of Claim 24 wherein the means for monitoring includes a memory means for storing a series of eye pressure determinations for several patients.

-30-(Original)

The system of Claim 29 wherein the memory means is a computer.

-31-(Currently Amended)

A method for determining fluid pressure within an environment containing the fluid under pressure which comprises:

(a) providing a wireless capacitive MEMS chip sensor comprising an inductance coil (L) and spaced

apart capacitor (C) plates as ~~a~~ an inductive-capacitive (LC) circuit, ~~optionally with an antenna externally of the sensor,~~ with the fluid in the environment in pressure contact with one of the capacitive plates, wherein the circuit has an element which is a series resistance which changes as a function of temperature resulting in a change of a resonant frequency response of the circuit due to temperature;

(b) inducing a mutual inductance as an external signal into the sensor to produce the ~~a~~ resonant frequency response as an internal signal from the sensor; and

(c) determining the fluid pressure and temperature within the environment externally of the environment from the internal signal as a function of the resonant frequency response from the sensor resulting from a change in capacitance of the sensor due to a variation in the spacing of the plates produced by the fluid pressure and the temperature in

the environment from the sensor resulting from the change in the series resistance.

-32-(Currently Amended)

A system for detecting increased fluid pressure in an environment which comprises:

(a) a sensor comprising a wireless capacitive MEMS chip sensor comprising an inductance coil (L) and spaced apart capacitor (C) plates as ~~a~~ an inductive capacitive (LC) circuit, ~~optionally with an antenna externally of the sensor,~~ with the fluid in the environment in pressure contact with one of the capacitive plates, wherein the circuit has an element which is a series resistance which changes as a function of temperature resulting in a change of a resonant frequency response of the circuit due to temperature; and

(b) a mutual inductance producing device which measures the ~~a~~ resonant frequency response of the sensor as an internal signal produced by the inductance device as an external signal relative to the environment, wherein the pressure of the fluid in the

environment which is to be detected over time ~~as a result~~ results from a change in capacitance of the sensor due to a variation of the spacing of the plates produced by the fluid pressure and a determination of the temperature of the fluid from the sensor from the change in the series resistance; and

(c) means for externally monitoring the fluid pressure and the temperature in the environment as a function of the external signal.

-33- (Currently Amended)

The method of Claim 1 wherein an intermediate unit (IU) which transmits the signals is provided on the animal outside of the ~~eye~~ eyeball to receive and then transmit the signals from the sensor to a remote data acquisition and processing unit (DAP).

-34-(Currently Amended)

The system of Claim 8 wherein an intermediate unit (IU) is provided on the animal outside of the ~~eye~~ eyeball to receive and then transmit the signals from the sensor to a remote data acquisition and processing unit (DAP).

-35-(Currently Amended)

The method of Claim 15 wherein an intermediate unit (IU) is provided on the animal outside of the ~~eye~~ eyeball to receive and then transmit the signals from the sensor to a remote data acquisition and processing unit (DAP).

-36-(Currently Amended)

The system of Claim 24 wherein an intermediate unit (IU) is provided on the animal outside of the ~~eye~~ eyeball to receive and then transmit the signals from the sensor to a remote data acquisition and processing unit (DAP).

-37-(Original)

The method of Claim 31 wherein an intermediate unit (IU) to receive and then transmit signals from the sensors to a remote data acquisition and processing unit (DAP) is provided adjacent to and outside of the fluid.